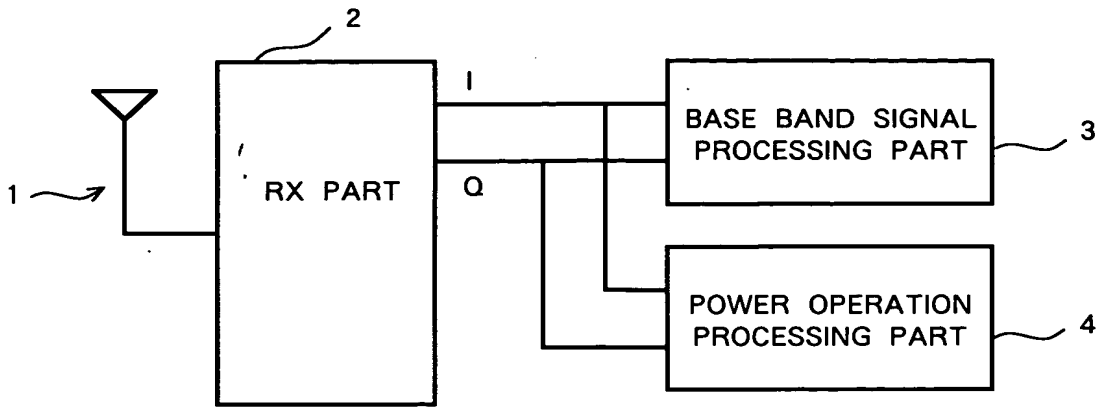
2
1
RX PART
I
Q
BASE BAND SIGNAL PROCESSING PART
3
POWER OPERATION PROCESSING PART
4

FIG. 1

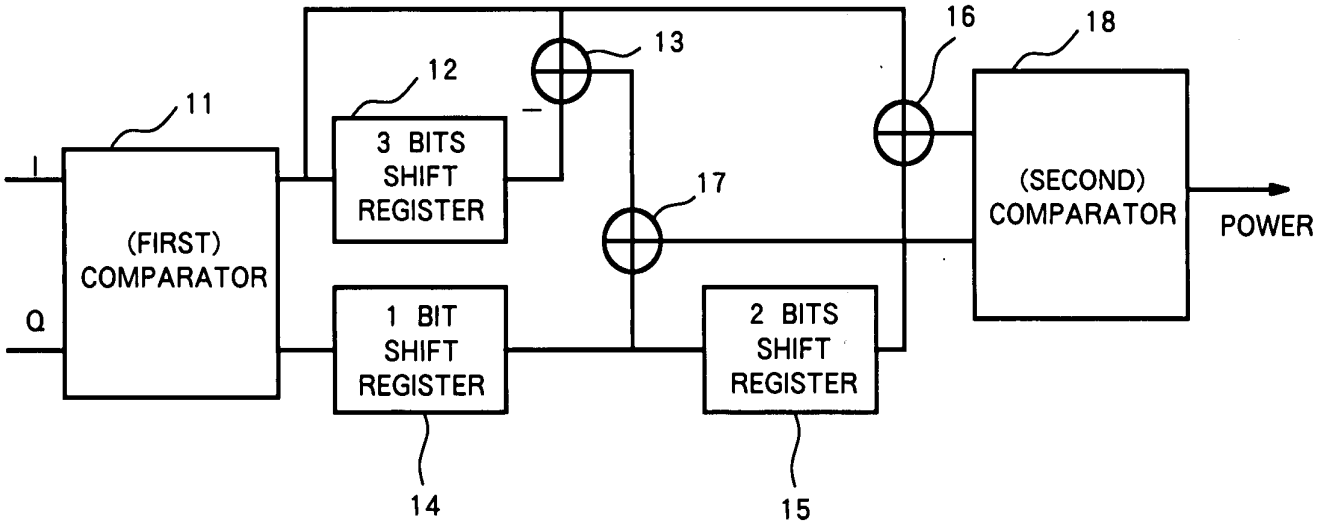

FIG. 2

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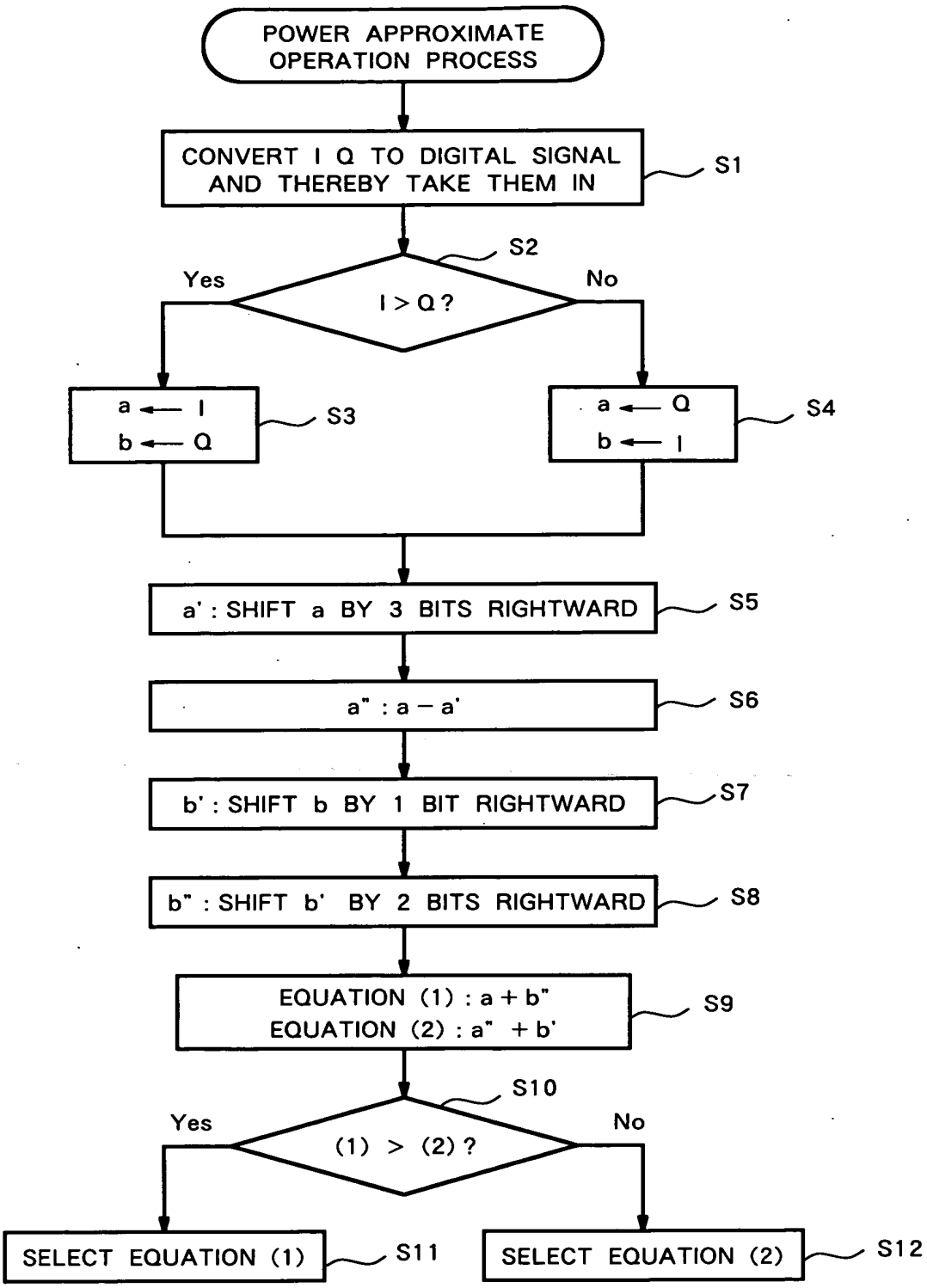
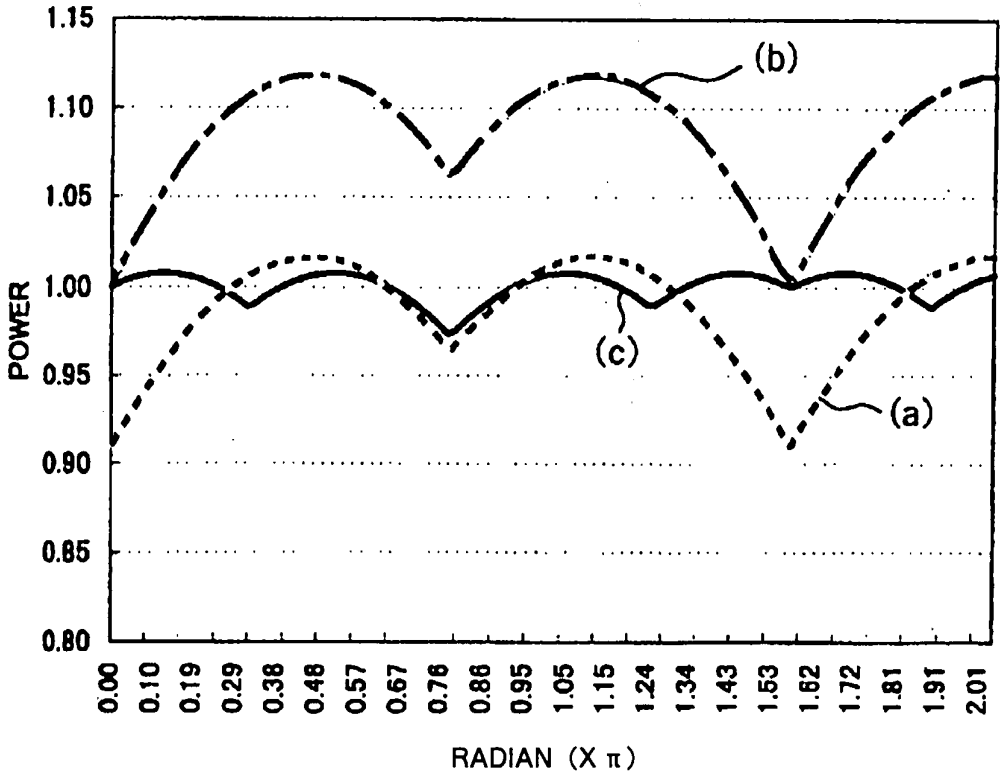

POWER APPROXIMATE OPERATION PROCESS
CONVERT I Q TO DIGITAL SIGNAL AND THEREBY TAKE THEM IN
S1
S2
Yes
I > Q ?
No
a ← I
b ← Q
S3
a ← Q
b ← I
S4
a' : SHIFT a BY 3 BITS RIGHTWARD
S5
a" : a − a'
S6
b' : SHIFT b BY 1 BIT RIGHTWARD
S7
b" : SHIFT b' BY 2 BITS RIGHTWARD
S8
EQUATION (1) : a + b"
EQUATION (2) : a" + b'
S9
S10
Yes
(1) > (2) ?
No
SELECT EQUATION (1)
S11
SELECT EQUATION (2)
S12

FIG. 3

(RESULTS OF APPROXIMATE OPERATIONS WHEN $I^2+Q^2=1$ IS REGARDED AS BEING IDEAL POINT)



(a) ---- GENERAL APPROXIMATE EQUATION

(b) —· CONVENTIONAL EQUATION

(c) —— EQUATION OF THE PRESENT INVENTION

FIG. 4

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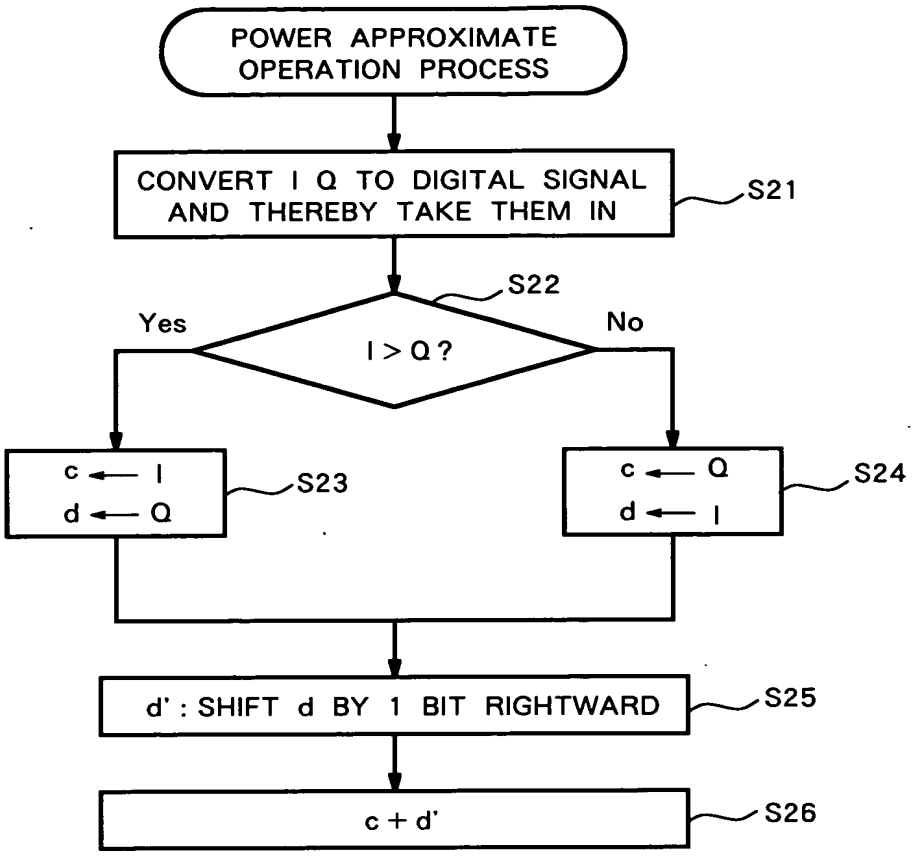
POWER APPROXIMATE OPERATION PROCESS
CONVERT I Q TO DIGITAL SIGNAL AND THEREBY TAKE THEM IN
S21
S22
Yes
I > Q ?
No
c ← I
d ← Q
S23
c ← Q
d ← I
S24
d' : SHIFT d BY 1 BIT RIGHTWARD
S25
c + d'
S26

FIG. 5